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EXAMINER

HERRERA, DIEGO D

ART UNIT

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/777,432	Applicant(s) KIM ET AL.	
	Examiner DIEGO HERRERA	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Appeal Brief submitted by appellant on 5/1/2009 has been reviewed and found to have merit as to not been proper rejection of 35 USC § 102 on final rejection sent on 9/4/2008. Therefore, finality is withdrawn.

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-16 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kasavaraju (US 5940515), and in view of Son (US 6654598).

Regarding claim 1, a method for performing call set up by a mobile station in a mobile communication system having a base station for serving the mobile station (fig. 4, abstract, title, Kasavaraju teaches mobile station securely dialing to mobile communication system having base station for serving mobile), the method comprising the steps of:

However, Kasavaraju does not disclose specifically entering at least one digit of a recipient's phone number; nevertheless, this was well known at the time the invention was made and taught by Son (col. 3 lines: 16-24, Son teaches entering at least one digit of a recipient's phone number in order to start the origination message); therefore, one of ordinary skill in the art would of use this system to send the origination message instead of Kasavaraju system of sending the origination message as soon as the phone is off hook state, as taught by Son thereby making the invention of Kasavaraju more versatile and efficient by not wasting resource allocation if the phone is just on the off hook state by adding this trigger the system is more efficient by only sending origination message when user starts dialing.

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transmitting to the base station an origination message that does not contain a recipient's phone number (col. 4 lines: 44-50, col. 5 lines: 43-53, Kasavaraju teaches transmitting to the base station an origination message that does not contain the recipient's phone number);

receiving a channel assignment message for a forward and reverse traffic channels from the base station, setting up wireless channels to the base station according to assignment information included in the channel assignment message (col. 5 lines: 54-57, Kasavaraju teaches base station assigning forward and reverse traffic channels for communication with the mobile device); and

completing entry of the recipient's phone number, transmitting to the base station, in response to a send key input (col. 6 lines: 8-10, Kasavaraju teaches complete dialed number from mobile terminal to base station) an origination continuation message containing the recipient's phone number (col. 5 lines: 55-60, Kasavaraju teaches an origination continuation message containing the recipient's phone number).

However, Kasavaraju does not disclose specifically a mobile switching center for controlling the base station, even though, his invention is to be used in a cellular telephonic communication system which inherently possess switching centers and other equivalent structures; nevertheless, Son teaches a WLL system which therein includes a switching center controlling the base station (col. 3 lines: 15-29, Son teaches WLL system which includes switching center for controlling base station). Therefore, to be more exact and thorough, one of ordinary skill in the art would be able to incorporate the system described in Son with that of Kasavaraju easily as it is well known and obvious

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to include in communication system networks.

Regarding claim 4, a method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base station (abstract, fig. 3, col. 4 lines: 30-58, col. 5 lines: 1-10), the method comprising the steps of:

However, Kasavaraju does not disclose specifically entering at least one digit of a recipient's phone number; nevertheless, this was well known at the time the invention was made and taught by Son (col. 3 lines: 16-24, Son teaches entering at least one digit of a recipient's phone number in order to start the origination message); therefore, one of ordinary skill in the art would use this system to send the origination message instead of Kasavaraju system of sending the origination message as soon as the phone is off hook state, as taught by Son thereby making the invention of Kasavaraju more versatile and efficient by not wasting resource allocation if the phone is just on the off hook state by adding this trigger the system is more efficient by only sending origination message when user starts dialing.

receiving an origination message by the base station, that does not contain the recipient's phone number from the mobile station, assigning to the mobile station wireless resources and transmitting to the mobile station a channel assignment message containing the assignment information (abstract, fig. 3, col. 4 lines: 30-58, col. 5 lines: 1-10);

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After transmitting the channel assignment message, assigning wireless channels to the mobile station (col. 5 lines: 43-67);

After completion of the assignment of the wireless channels, transmitting to the mobile switching center a service request message when an origination continuation message, transmitted in response to a send key input, containing a recipient's phone number is received from the mobile station (col. 5 lines: 43-67); and

Upon receiving a wireless resource assignment request message from the mobile switching center, acknowledging the wireless resource assignment request message as a message indicating completion of the assignment of the wire resource in the mobile switching center (col. 5 lines: 18-29), and transmitting a wireless resource assignment complete message to the mobile switching center.

However, Kasavaraju does not disclose specifically a mobile switching center for controlling the base station, even though, his invention is to be used in a cellular telephonic communication system which inherently possess switching centers and other equivalent structures; nevertheless, Son teaches a WLL system which therein includes a switching center controlling the base station (col. 3 lines: 15-29, Son teaches WLL system which includes switching center for controlling base station). Therefore, to be more exact and thorough, one of ordinary skill in the art would be able to incorporate the system described in Son with that of Kasavaraju easily as it is well known and obvious to include in communication system networks.

Regarding claim 6, a method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station

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for serving the mobile station, and a mobile switching center for controlling the base station (abstract, fig. 3, col. 4 lines: 30-58, col. 5 lines: 1-10), the method comprising the steps of:

However, Kasavaraju does not disclose specifically entering at least one digit of a recipient's phone number; nevertheless, this was well known at the time the invention was made and taught by Son (col. 3 lines: 16-24, Son teaches entering at least one digit of a recipient's phone number in order to start the origination message); therefore, one of ordinary skill in the art would use this system to send the origination message instead of Kasavaraju system of sending the origination message as soon as the phone is off hook state, as taught by Son thereby making the invention of Kasavaraju more versatile and efficient by not wasting resource allocation if the phone is just on the off hook state by adding this trigger the system is more efficient by only sending origination message when user starts dialing.

Upon receiving an origination message from the mobile station, transmitting to the mobile switching center a service request message requesting assignment of a wire resource (col. 5 lines: 18-29), simultaneously assigning wireless resources to the mobile station (col. 5 lines: 43-67), and transmitting a channel assignment message containing the assignment information to the mobile station; assigning wireless channels to the mobile station (col. 5 lines: 43-67); and

If a wireless resource assignment request message is received from the mobile switching center, acknowledging the wireless resource assignment request message as a message indicating completion of the assignment of the wire resource in the mobile

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switching center, However, Kasavaraju does not disclose specifically a mobile switching center for controlling the base station, even though, his invention is to be used in a cellular telephonic communication system which inherently possess switching centers and other equivalent structures; nevertheless, Son teaches a WLL system which therein includes a switching center controlling the base station (col. 3 lines: 15-29, Son teaches WLL system which includes switching center for controlling base station). Therefore, to be more exact and thorough, one of ordinary skill in the art would be able to incorporate the system described in Son with that of Kasavaraju easily as it is well known and obvious to include in communication system networks.

Transmitting, after receiving an origination complete message generated in response to the entry of a send key, an assignment complete message mobile switching center (col. 3 lines: 15-29, Son teaches WLL system which includes switching center for controlling base station).

Regarding claim 9, a method for performing call set up by a base station upon call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base station (abstract, fig. 3, col. 4 lines: 30-58, col. 5 lines: 1-10), the method comprising the steps of:

Upon receiving an origination message, that does not contain the recipient's phone number from the mobile station, transmitting a service request message requesting assignment of a wire resource to the mobile switching center (), simultaneously assigning wireless resources to the mobile station, and transmitting a channel

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assignment message including the assignment information to the mobile station

(abstract, col. 1 lines: 65--col.2 lines: 6);

However, Kasavaraju does not disclose specifically entering at least one digit of a recipient's phone number; nevertheless, this was well known at the time the invention was made and taught by Son (col. 3 lines: 16-24, Son teaches entering at least one digit of a recipient's phone number in order to start the origination message); therefore, one of ordinary skill in the art would use this system to send the origination message instead of Kasavaraju system of sending the origination message as soon as the phone is off hook state, as taught by Son thereby making the invention of Kasavaraju more versatile and efficient by not wasting resource allocation if the phone is just on the off hook state by adding this trigger the system is more efficient by only sending origination message when user starts dialing.

After transmitting the channel assignment message, assigning wireless channels to the mobile station (col. 5 lines: 43-67);

After assignment of the wireless channels, transmitting to the mobile switching center a recipient's phone number when an origination continuation message, transmitted in response to entry of a send key, is received from the mobile station (fig. 3, external system, col. 5 lines: 15-67); and

After assignment of the wireless channels, if a wireless resource assignment request message is received from the mobile switching center in response to a service request message, acknowledging the wireless resource assignment request message as a message indicating completion of the assignment of the wire resource in the mobile

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switching center (col. 5 lines: 15-67), and transmitting to the mobile switching center a wireless resource assignment complete message (col. 5 lines: 15-67).

However, Kasavaraju does not disclose specifically a mobile switching center for controlling the base station, even though, his invention is to be used in a cellular telephonic communication system which inherently possess switching centers and other equivalent structures; nevertheless, Son teaches a WLL system which therein includes a switching center controlling the base station (col. 3 lines: 15-29, Son teaches WLL system which includes switching center for controlling base station). Therefore, to be more exact and thorough, one of ordinary skill in the art would be able to incorporate the system described in Son with that of Kasavaraju easily as it is well known and obvious to include in communication system networks.

Regarding claim 10, a mobile station apparatus for performing call setup in a mobile communication system (abstract, fig. 3, col. 4 lines: 30-58, col. 5 lines: 1-10), comprising:

A key input unit for generating a key signal corresponding to a key input by a user (col. 3 lines: 25-58);

A radio frequency (RF) unit for up-converting a signal to be transmitted to a base station into a RF signal (col. 3 lines: 25-58), and down-converting an RF signal received from the base station into a base band signal (col. 3 lines: 25-58);

An inherent modem for encoding and modulating data or a message to be transmitted to the base station (col. 3 lines: 25-58), providing the modulated data or message to the

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RF unit (col. 3 lines: 25-58), and demodulating and decoding the base band signal received from the RF unit (col. 3 lines: 25-58); and

A controller for generating an origination message (col. 3 lines: 25-58), , that does not contain the recipient's phone number and providing the origination message to the modem when a dial signal is received from the key input unit (abstract, title, fig. 1- 5, col. 3 lines: 6-13),

However, Kasavaraju does not disclose specifically entering at least one digit of a recipient's phone number; nevertheless, this was well known at the time the invention was made and taught by Son (col. 3 lines: 16-24, Son teaches entering at least one digit of a recipient's phone number in order to start the origination message); therefore, one of ordinary skill in the art would of use this system to send the origination message instead of Kasavaraju system of sending the origination message as soon as the phone is off hook state, as taught by Son thereby making the invention of Kasavaraju more versatile and efficient by not wasting resource allocation if the phone is just on the off hook state by adding this trigger the system is more efficient by only sending origination message when user starts dialing.

controlling the RF unit to setup wireless channels (col. 3 lines: 25-58), for a forward and a reverse traffic channels and performing service negotiation upon receiving a channel assignment message (col. 3 lines: 25-58), and generating, in response to an entry of a send key input, an origination continuation message to the modem when a key input complete signal is received from the key input unit.

Consider claim 2, and as applied to claim 1 above, wherein the step of setting up

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wireless channels comprises the steps of: Assigning the forward traffic channel and the reverse traffic channel corresponding thereto according to the assignment information (col. 4 lines: 30—col. 5 lines: 10, Kasavaraju teaches forward traffic channel and reverse traffic channel), and transmitting a preamble over the assigned reverse traffic channel (col. 5 lines: 1-10, the base station sends to the network a long code transition request order thereby making the traffic channel more private); and Exchanging acknowledgement (ACK) orders with the base station and performing service negotiation with the base station (fig. 5, col. 5 lines: 43-67, Kasavaraju teaches further exchanging acknowledgement and performing service negotiation, by hence, starting or establishing communication with the caller and called party).

Consider claim 5, and as applied to claim 4 above, further comprising the steps of:

- a. Upon receiving the assignment request message from the mobile switching center (col. 3 lines: 15-37, Son teaches WLL system having that of a switching center wherein the base station receives assignment request message), determining whether assignment of the wireless channels is completed (col. 4 lines: 31-32, col. 5 lines: 14-35, Son teaches base station assigns the wireless channels there is determination by base station whether the assignment of the channels is completed); and
- b. Transmitting the assignment complete message to the mobile switching center if assignment of the wireless channels is completed (col. 4 lines: 59-67 and col. 5 lines: 23-35, Son teaches that base station transmit destination telephone number to the switching center by DTMF burst message to connect to destination subscriber; hence, receiving message of assignment of channels is completed).

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Consider claim 7, and as applied to claim 6 above, the assignment request message from the mobile switching center is received after a service request message is transmitted ().

Consider claim 8, and as applied to claim 6 above, further comprising the steps of: Upon receiving the assignment request message from the mobile switching center (col. 3 lines: 15-37, Son teaches WLL system having that of a switching center wherein the base station receives assignment request message), determining by the base station whether assignment of the wireless channels is completed (col. 4 lines: 31-32, col. 5 lines: 14-35, Son teaches base station assigns the wireless channels there is determination by base station whether the assignment of the channels is completed); and

Transmitting the assignment complete message to the mobile switching center if assignment of the wireless channels is completed (col. 4 lines: 59-67 and col. 5 lines: 23-35, Son teaches that base station transmit destination telephone number to the switching center by DTMF burst message to connect to destination subscriber; hence, receiving message of assignment of channels is completed).

Consider claims 3 and 11, as applied to claim 1 above, the origination message includes a dummy phone number consisting of all '0s' (col. 5 lines: 18-23, 43-53, Kasavaraju teaches origination message includes phone number consisting of all '0s' zeros).

Consider claim 12. The method of claim 4, wherein the step of assigning wireless channels comprises:

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assigning, before input of the send key, a forward traffic channel and a reverse traffic channel corresponding thereto according to the assignment information (col. 4 lines: 30—col. 5 lines: 10, Kasavaraju teaches forward traffic channel and reverse traffic channel), and transmitting a preamble over the assigned reverse traffic channel (col. 5 lines: 1-10, the base station sends to the network a long code transition request order thereby making the traffic channel more private); and exchanging acknowledgement (ACK) orders with the base station and performing service negotiation with the base station (fig. 5, col. 5 lines: 43-67, Kasavaraju teaches further exchanging acknowledgement and performing service negotiation, by hence, starting or establishing communication with the caller and called party).

Consider claim 13. The method of claim 4, wherein the origination message includes a dummy phone number consisting of all '0s' (col. 5 lines: 18-23, 43-53, Kasavaraju teaches origination message includes phone number consisting of all '0s' zeros).

Consider claim 14. The method of claim 9, wherein the step of assigning wireless channels comprises: assigning a forward traffic channel and a reverse traffic channel corresponding thereto according to the assignment information (col. 4 lines: 30—col. 5 lines: 10, Kasavaraju teaches forward traffic channel and reverse traffic channel), and transmitting a preamble over the assigned reverse traffic channel (col. 5 lines: 1-10, the base station sends to the network a long code transition request order thereby making the traffic channel more private);and exchanging station and performing acknowledgement (ACK) orders with the base service negotiation with the base station (fig. 5, col. 5 lines: 43-67, Kasavaraju teaches further exchanging acknowledgement

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and performing service negotiation, by hence, starting or establishing communication with the caller and called party).

Consider claim 15. The method of claim 9, wherein the origination message includes a dummy phone number consisting of all '0s' (col. 5 lines: 18-23, 43-53, Kasavaraju teaches origination message includes phone number consisting of all '0s' zeros).

Consider claim 16. The method of claim 10, wherein the step of setting up the wireless channels comprises:

assigning a forward traffic Channel and a reverse traffic channel corresponding thereto according to the assignment information (col. 4 lines: 30—col. 5 lines: 10, Kasavaraju teaches forward traffic channel and reverse traffic channel), and transmitting a preamble over the assigned reverse traffic channel (col. 5 lines: 1-10, the base station sends to the network a long code transition request order thereby making the traffic channel more private); and exchanging acknowledgement (ACK) orders with the base station and performing service negotiation with the base station (fig. 5, col. 5 lines: 43-67, Kasavaraju teaches further exchanging acknowledgement and performing service negotiation, by hence, starting or establishing communication with the caller and called party).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEGO HERRERA whose telephone number is (571)272-0907. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Herrera/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617